

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re **PATENT** application of:

Applicant: David G. Land

Serial No.: 10/824,156

Art Unit: 3641

Filed: April 14, 2004

Confirmation No.: 6382

Title: DETONATOR SYSTEM HAVING LINEAR ACTUATOR

Examiner: Troy Chambers

Docket No.: 04E007

RESPONSE TO NOTIFICATION OF NON-COMPLIANT APPEAL BRIEF

Mail Stop: Appeal Brief - Patents
Commissioner for Patents
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Notification of Non-Compliant Appeal Brief mailed March 21, 2008, Applicants submit the following revised version of the Summary of Claimed Subject Matter section of the Brief. The revised version addresses the issue raised in the Notice and should be substituted for the version in the previously-filed Appeal Brief.

If any questions arise concerning this, a telephone call to the undersigned would be welcome.

No fee is believed to be due with the filing of this paper. In the event any fees are due in connection with the filing of this paper, the Commissioner is authorized to charge those fees to our Deposit Account No. 18-0988, our Order No. RAYTP0254US.

Respectfully submitted,

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CERTIFICATE OF ELECTRONIC TRANSMISSION

I hereby certify that this paper (and any other paper referred to as being attached or enclosed) is being transmitted electronically to the U.S. Patent and Trademark Office via the Electronic Filing System (EFS) on the date set forth below.

April 1, 2008
Date

/M. David Galin/
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V. Summary of the Claimed Subject Matter

Independent claim 1 is directed to a detonation initiator 14 that comprises a linear actuator assembly 44, a capacitor 40, and an electrical circuit 38 (figures 2 and 8; page 4, lines 10-13; page 6, line 24 to page 7, line 11). The linear actuator assembly 44 is activated by the discharging of the capacitor 40 (page 3, lines 31-32; page 12, lines 6-11).

The claimed linear actuator assembly 44 has a core 58 with a permanent magnet 60 disposed with respect to a coil 42 (figure 4; page 8, lines 15-24). A firing pin 50 is coupled to the core 58 and disposed along a longitudinal axis of the linear actuator assembly 44 (figures 4 and 5; page 9, lines 7-15).

The claimed capacitor 40 stores electrical energy derived from an electrical pulse received by the detonation initiator 14 (page 3, lines 29-32; page 12, lines 6-7).

The claimed electrical circuit 38 (figure 8; page 11, lines 25-30) monitors the charge on the capacitor 40 and discharges the capacitor 40 when the charge on the capacitor 40 reaches a charge threshold (generally at page 12, lines 6-10 and page 2, lines 21-25, and in a detailed exemplary embodiment at page 12, line 12 to page 13, line 2). The capacitor 40 is discharged through the coil 42 of the linear actuator assembly 44 to propel the core 58 along the longitudinal axis of the linear actuator assembly 44 (page 12, lines 7-11).

The electrical circuit 38 includes a digital logic gate U1F to monitor the charge on the capacitor 40, where the digital logic gate U1F is configured as a comparator to compare a representation of the charge of the capacitor 40 with a reference voltage established from the electrical pulse used to charge the capacitor 40 (figure 8; page 12, lines 12-29).

Furthermore, all operational power for the electrical circuit 38 is derived from the electrical pulse (page 12, line 29 to page 13, line 2). In this manner, no additional power supply sources are required to establish a reference point for comparison to the voltage of the claimed capacitor 40 and to initiate a detonation (Id.).